

Customer No.: 31561  
Application No.: 10/709,306  
Docket No.: 12952-US-PA

### **REMARKS**

This is a full and timely response to the outstanding Final Office Action mailed Dec. 22, 2006. Reconsideration and allowance of the application and presently pending claims 1-6, 8-11, and 14-16 as previously presented are respectfully requested.

### **Present Status of the Application**

Claims 1-6, 8-11, 14-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over the admission (AAPA) and of Song et al (US6215541) and of Baek et al (US6524876) in view of Matsumoto (US5969780).

### **Discussion of Office Action Rejections**

The Office Action rejected claims 1-6, 8-11, 14-16 under 35 U.S.C. 103(a) as being unpatentable over the admission (AAPA) and of Song et al (US6215541) and of Baek et al (US6524876) in view of Matsumoto (US5969780).

In response to the rejection thereto, Applicant hereby otherwise traverses the rejection and submits that the present invention as set forth in claims 1-6, 8-11, 14-16 is neither taught, disclosed, nor suggested by AAPA, Song, Baek, and Matsumoto or any other cited references, taken alone or in combination.

With respect to claim 1, Claim 1 recites in part:

A pixel structure, comprising:

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**... a dielectric layer, disposed between the scan line and the redundant scan line, wherein more than three first contact holes are formed in the dielectric layer wherein the scan line is electrically connected with the redundant scan line through at least one or more first contact holes that expose a portion of the scan line, wherein each first contact hole has a length in a range of about 20 $\mu$ m to about a length of the scan line;... (Emphasis added)**

In rejecting claim 1, the Examiner admitted "Admission does not disclose more than three first contact holes wherein each first contact hole has a length in a range of about 20 $\mu$ m to about a length of the scan line", and then the Examiner recited Song and contended "Song et al disclose (Figure 5) three contact holes connecting data line and redundant data line".

However, this is not true. Song teaches: "[T]he passivation layer 70 has contact holes 71, 73 and 75 which expose the mid-portions of the data line 60, the data pad 63 and the data line connector 64 respectively ... the passivation layer 70 and the gate insulating layer 30 have contact holes 72 and 74 exposing the gate pads 22 and the gate line connector 24", and "the longitudinal portion 84 is connected to the gate line connector 24 through the contact holes 74" (col. 6, lines 1-24; emphasis added).

First, Applicant submits that Song et al. fail to teach, disclose, or suggest "the scan line is electrically connected with the redundant scan line through at least one or more first contact holes that expose a portion of the scan line". Even though the Examiner relying on similarity between data line and scan line, Song et al. did not teach "three

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contact holes connecting data line and redundant data line" as alleged by the Examiner.

In previous Office Action, the Examiner had interpreted item 74 of Song et al. as reading on the first contact holes. However, it is noted that the contact holes 74 are employed for connecting the gate line connector 24 which could not be construed as a data line and the longitudinal portion 84 which could possibly be construed as a redundant data line.

Secondly, Applicant submits that neither AAPA, Song et al., Baek et al., nor Matsumoto, has taught, suggested, or disclosed "first contact hole has a length in a range of about 20 $\mu$ m to about a length of the scan line" as required by claim 1.

As an evidence for rejection, the Examiner cited Matsumoto (col. 5, rows 35-46). However, in the designated section of Matsumoto, what is discussed is **width** rather than **length** of the contact hole. Therefore, Applicant submits that the claimed limitation about the length of the first contact hole has not been suggested.

Thirdly, Applicant submits that there is no motivation to make the modification or combination as proposed by the Examiner. The Examiner propose to modify the admission, Song et al., and Baek et al's four contact holes motivated by the desire to increase the **reliability of the contacts between pads and drivers** to also include Matsumoto's contact hole size motivated by the desire to provide good electrical connection. However, Applicant noted that Song's desire is to "increase the **reliability of the contacts between pads and drivers**", and such a desire does not motivate those of

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ordinary skill in the art to have a redundant scan line connected with a scan line via four or more contact holes. Further, the desire to provide good electrical connection of Matsumoto teaches nothing about a **length** of the first contact hole.

According to MPEP 2143, to establish a prima facie case of obviousness, the prior reference (or references when combined) must teach or suggest all the claim limitations. Moreover, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. As set forth above, Applicant respectfully asserts that AAPA, Song, Baek and Matsumoto do not teach or reasonably suggest at least the features/limitations that have been emphasized above in independent claim 1.

Applicant further submit that claims 6 and 14 contain above discussed subject matter that are novel and nonobvious over AAPA, Song, Baek, and Matsumoto, and thus should also be allowable.

For at least the foregoing reasons, Applicant submits that claim 1 is novel and unobvious over AAPA, Song, Baek, and Matsumoto or any other cited references, taken alone or in combination, and thus should be allowed.

Similarly, Applicant further submit that claims 6 and 14 contain above discussed allowable subject matter that are novel and nonobvious over AAPA, Song, Baek, and Matsumoto, and thus should also be allowable.

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If independent claim 1 is allowable over the prior art of record, then its dependent claims 2-5 are allowable as a matter of law, because these dependent claims contain all features of their respective independent claim 1. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988).

If independent claim 6 is allowable over the prior art of record, then its dependent claims 8-11 are allowable as a matter of law, because these dependent claims contain all features of their respective independent claim 1. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988).

If independent claim 14 is allowable over the prior art of record, then its dependent claims 15 and 16 are allowable as a matter of law, because these dependent claims contain all features of their respective independent claim 1. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988).

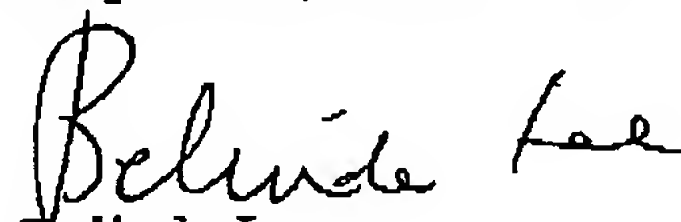
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**CONCLUSION**

For at least the foregoing reasons, it is believed that the pending claims 1-6, 8-11, and 14-16 are in proper condition for allowance and an action to such effect is earnestly solicited. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,

  
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